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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,611	03/26/2002	Michiel Gerard Peters	PTT-130(402559US)	5101

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EXAMINER

WANG, QUAN ZHEN

ART UNIT	PAPER NUMBER
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2633

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/018,611

Applicant(s)

PETERS ET AL.

Examiner

Quan-Zhen Wang

Art Unit

2633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 29 and 30 is/are allowed.
- 6) ☒ Claim(s) 17-19 and 25 is/are rejected.
- 7) ☒ Claim(s) 20-24, 26-28, and 31-32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/17/01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 18-20, 25-26, and 31 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claims 18-20, 25-26 depend on cancelled claim 16.

Claim 31 depends on itself.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 18-28, and 31-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 18 recites the limitation "... the transmission of the low priority signal ..." in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

Claim 18 recites the limitation "... the transmission of the high priority signal ..." in lines 4-5. There is insufficient antecedent basis for this limitation in the claim.

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Claim 19 recites the limitation "... the transmission of the low priority signal ..." in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

Claim 19 recites the limitation "... the transmission of the high priority signal ..." in lines 4-5. There is insufficient antecedent basis for this limitation in the claim.

Claim 20 recites the limitation "... the transmission of the high priority signal ..." in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 25 recites the limitation "... the high- and/or low-priority signal ..." in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 26 recites the limitation "... the high- and low-priority signal ..." in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 31 recites the limitation "... the first set of WDM channels" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 17-19 and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Asahi (U.S. Patent US 6,195,186 B1).

Regarding claim 17, Asahi teaches a method for transmitting optical signals having several priorities (figs. 1 and 6-7) via a transmission network with protection, comprising steps of:

Transmitting an optical signal carrying traffic with a high priority (fig. 7, higher-priority signals), via an optical connection (figs. 1 and 7, F1, and F2) through the network; Transmitting an optical signal carrying traffic with a low priority (fig. 7, lower-priority signals) via at least a part of a protection connection (figs. 1 and 7, F3 and F4); Protection switching (fig. 1, switches 105 and 106) for switching the traffic with high priority from being carried by an optical signal transmitted via the operational connection to being carried by an optical signal transmitted via the protection connection in the event of an error condition (fig. 6B; column 5, lines 42-54; and column 6, lines 28-31); and giving way the transmission of the low priority signal via at least the part of the protection connection in the event of the error condition under control of a detection of an optical signal signaling that a protection switching has occurred (column 5, lines 42-54; and column 6, lines 28-31).

Characterized in that: the transmission network is an optical network, in which the step of protection switching is carried out in such a way that the high priority signal is switched by optical switching means (fig. 1, switches 105 and 106) from the operational connection (figs 1 and 7, F1 and F2) to the protection connection (figs 1 and 7, F3 and F4) and the step of giving way ("broken down", column 6, line 31) is carried out upon detection of a signal characteristic of the high priority signal on the protection connection (column 6, lines 31-35)

Regarding claim 18, Asahi further teaches that the low priority signal is carried out at a first wavelength spectrum (fig. 7, lower-priority signal λ_1), the transmission of the high priority optical signals are carried out at a second wavelength spectrum (fig. 7, higher-priority signal λ_1 and λ_3), which differs from the first wavelength spectrum, and the optical detection (fig. 8, signal λ_3) is carried out on the optical characteristic which corresponds to a difference spectrum in which the second wavelength spectrum differs from the first one (fig. 7, λ_3).

Regarding claim 19, Asahi further teaches that the low priority signal being carried out in a direction (fig. 7, λ_1 in F4) opposite to the one of the transmission of the high priority signal (fig. 7, λ_3 in F1) in the event of an error condition of the operational connection, and the optical detection is carried out in a direction-selective manner (fig. 8).

Regarding claim 25, Asahi further teaches that the high- and/or low-priority signals are optical WDM signals (fig. 5C; column 5, lines 14-25).

Allowable Subject Matter

4. Claims 20-24, and 26-28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, and rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Claims 29-30 are allowed.

Claims 31-32 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claim 20 is allowable since prior art of record does not teach or suggest in combination that the high priority signal includes a signal which is specific for the high priority signal, and the optical detection is carried out in a manner selective for the specific signal.

Claims 21-24 are allowable since prior art of record does not teach or suggest in combination that the switching is carried out by switching means between a first switching mode, in which the low-priority signal is added or dropped, respectively to and from the protection connection, and a second switching mode, in which the high-priority signal passes on over the protection connection, in addition to other claimed limitations.

Claim 26-28 are allowable since prior art of record does not teach or suggest in combination that on either side of the part of the protection connection, an OADM is included of which the switching means and detection means are part; and in that, per OADM, the optical detection is carried out on at least one of the WDM channels of the high-priority signal, and the switching is carried out per WDM channel of the low-priority signal through switching means under control of the optical detection, the switching means having a first switching mode for adding and dropping a low priority signal and a second switching mode for passing on a high priority signal.

Claims 29-32 are allowable since prior art of record does not teach or suggest in combination that the optical protection-switching means included between the two rings on either side of the first and second OADM's for optical protection-switching of WDM-signals between the two optical rings; a first set of WDM channels forming operational connection over a concerned one of the two rings for transmission of optical signals of high priority; and a second set of WDM channels for transmission of optical signals of low priority in normal operation, and for forming protection connections over the concerned one of the two rings for high priority signals upon occurrence of protection-switching in the event of an error condition of an operational connection over the other one of the two rings; and optical detection means for detecting a high priority signal on at least one protection channel of the set of protection channels; in addition to other claimed limitations.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Arecco (U.S. Patent US 6,400,476 B1) is cited to show a method and apparatus for transparent optical communication with two-fiber bidirectional ring with auto-protection and management of low-priority traffic.

Badr (U.S. Patent US 6,567,194 B1) is cited to show an optical communication network and protection methods.

Flanagan et al. (U.S. Patent US 5,933,258) is cited to show a discontinuous ring by separating bidirectional optical communication links and ratios of working and protection channels.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quan-Zhen Wang whose telephone number is (571) 272-3114. The examiner can normally be reached on 9:00 AM - 5:00 PM, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

qzw


M. R. SEDIGHIAN
PRIMARY EXAMINER